

AMENDMENTS TO THE CLAIMS

1-16. (Canceled)

17. (Currently Amended) An error correction method ~~for~~ using a plurality of pieces of sub data which comprise error correction codes that are independent from error correction codes of an error correction target code line in error correction target to configure erasure position information, said method comprising:

a judgment step ~~for~~ of judging whether or not a first piece of data, which is one of the a plurality of pieces of data elements of the error correction target code line in said error correction target, and a second piece of data, which is one of a plurality of pieces of data exists on the same position as the first data in the of a previous error correction code line, of previous error correction, existed were located between the same pieces of sub data before being deinterleaved;

a configuration step ~~for~~ of configuring erasure position information of said ~~second~~ first piece of data belonging to the error correction target code line as to be the same as erasure position information of said first second piece of data belonging to the previous error correction code line when said judgment step judges that the first piece of data and the second piece of data existed are both located between the same pieces of sub data; and

an error correction step ~~for~~ of performing error correction on the error correction target code line in said error correction target.

18. (Currently Amended) An error correction method as defined in Claim 17, wherein said error correction target code line ~~in error correction target~~ extends between plural pieces of sub data before being deinterleaved.

19. (Currently Amended) An error correction method as defined in Claim 17, wherein ~~the method uses~~ sync data ~~which~~ is inserted between data at predetermined intervals to configure the erasure position information of said first piece of data.

20. (Currently Amended) An error correction method as defined in Claim 19, wherein said judgment step judges that the first piece of data and the second piece of data do ~~does~~ not exist between the same pieces of sub data groups with said second data when said first piece of data ~~is the next data to~~ is directly subsequent to a piece of sub data ~~region~~ or a piece of sync data region of the in a data recording order.

21. (Currently Amended) An error correction method as defined in Claim 20, wherein ~~an~~ said error correcting step performs error correction without using said erasure position information when ~~the number~~ an amount of said erasure position information configured in said configuring step is higher than ~~the number~~ an amount of parity data.

22. (Currently Amended) An error correction method ~~for~~ using a plurality of pieces of sub data which comprise ~~comprises~~ error correction codes that are independent from error

correction codes of an error correction target code line ~~in error correction target~~ to configure erasure position information, said method comprising:

a judgment step ~~for~~ of judging whether or not a first piece of data, which is one of the a plurality of pieces of data ~~elements of the error correction target code line in said error correction target~~, and a second piece of data, which is one of a plurality of pieces of data ~~exists on the same position as the first data in the~~ of a previous error correction code line, ~~of previous error correction, existed~~ were located between the same pieces of sub data before being deinterleaved when the previous error correction code line ~~of the previous error correction~~ had error correction performed thereon by using said erasure position information;

a configuration step ~~for~~ of configuring erasure position information of said ~~second~~ first piece of data belonging to the error correction target code line as to be the same as erasure position information of said ~~first~~ second piece of data belonging to the previous error correction code line when said judgment step judges that the first piece of data and the second piece of data ~~existed~~ are both located between the same pieces of sub data, and configuring erasure position information of every element piece of data of the error correction target code line in said error correction target when the previous error correction code line ~~of the previous error correction~~ had error correction performed thereon ~~error correction~~ without using erasure position information; and

an error correction step ~~for~~ of performing error correction on the error correction target code line ~~in said error correction target~~.

23. (Currently Amended) An error correction method as defined in Claim 22, wherein said error correction target code line ~~in error correction target~~ extends between plural pieces of sub data before being deinterleaved.

24. (Currently Amended) An error correction method as defined in Claim 22, wherein ~~the method uses~~ sync data ~~which~~ is inserted between data at predetermined intervals to configure the erasure position information of said first piece of data.

25. (Currently Amended) An error correction method as defined in Claim 24, wherein said judgment step judges that the first piece of data and the second piece of data do not exist between the same pieces of sub data groups with said second data when said first piece of data is ~~the next data to~~ directly subsequent to a piece of sub data region or a piece of sync region data of the in a data recording order.

26. (Currently Amended) An error correction method as defined in Claim 25, wherein said error correction step performs error correction without using said erasure position information when ~~the number~~ an amount of said erasure position information configured in said configuration step is higher than ~~the number~~ an amount of parity data.

27. (Currently Amended) An error correction apparatus using a plurality of pieces of sub data which comprise ~~comprises~~ error correction codes that are independent from error

correction codes of an error correction target code line ~~in error correction target~~ to configure erasure position information, said apparatus comprising:

a judgment means for judging whether or not a first piece of data, which is one of ~~the a plurality of pieces of data~~ elements of the error correction target code line ~~in said error correction target~~, and a second piece of data, which is one of a plurality of pieces of data exist on the same position as the first data in the of a previous error correction code line, ~~of previous error correction, existed~~ were located between the same pieces of sub data before being deinterleaved;

a configuration means for configuring erasure position information of said ~~second~~ first piece of data belonging to the error correction target code line as to be the same as erasure position information of said ~~first~~ second piece of data belonging to the previous error correction code line when said judgement means judges that the first piece of data and the second data piece of data existed are both located between the same pieces of sub data; and

an error correction means for performing error correction on the error correction target code line ~~in said error correction target~~.

28. (Currently Amended) An error correction apparatus as defined in Claim 27, wherein said error correction target code line ~~in error correction target~~ extends between plural pieces of sub data before being deinterleaved.

29. (Currently Amended) An error correction apparatus as defined in Claim 27, wherein ~~the apparatus uses sync data which~~ is inserted between data at predetermined intervals to configure erasure position information of said first piece of data.

30. (Currently Amended) An error correction apparatus as defined in Claim 29, wherein said judgment means judges that said first piece of data and said second piece of data ~~do~~ does not exist between the same pieces of sub data groups with said second data when said first piece of data is the next data is directly subsequent to a piece of sub data region or a piece of sync data region of the in a data recording order.

31. (Currently Amended) An error correction apparatus as defined in Claim 30, wherein said error correction means performs error correction without using said erasure position information when ~~the number~~ an amount of said erasure position information configured by said configuration means is higher than ~~the number~~ an amount of parity data.

32. (Currently Amended) An error correction apparatus using a plurality of pieces of sub data which comprise ~~comprises~~ error correction codes that are independent from error correction codes of an error correction target code line ~~in error correction target~~ to configure erasure position information, said apparatus comprising:

a judgment means for judging whether or not a first piece of data, which is one of ~~the a~~ plurality of pieces of data ~~elements of the error correction target code line in said error~~

~~correction target~~, and a second piece of data, which is one of a plurality of pieces of data exists ~~on the same position as the first data in the~~ of a previous error correction code line, ~~of previous error correction, existed~~ were located between the same pieces of sub data before being deinterleaved when the previous error correction code line ~~of the previous error correction~~ had error correction performed thereon ~~error correction~~ by using said erasure position information;

a configuration means for configuring erasure position information of said ~~second~~ first piece of data belonging to the error correction target code line ~~as to be the same as~~ erasure position information of said ~~first~~ second piece of data belonging to the previous error correction code line when said judgment ~~step~~ means judges that the first piece of data and the second piece of data existed are both located between the same pieces of sub data, and configuring erasure position information of every element piece of data of the error correction target code line ~~in said error correction target~~ when the previous error correction code line ~~of the previous error correction~~ had error correction performed thereon ~~error correction~~ without using erasure position information; and

an error correction means for performing error correction on the error correction target code line ~~in said error correction target~~.

33. (Currently Amended) An error correction apparatus as defined in Claim 32, wherein said error correction target code line ~~in error correction target~~ extends between plural pieces of sub data before being deinterleaved.

34. (Currently Amended) An error correction apparatus as defined in Claim 32, wherein ~~the apparatus uses sync data which~~ is inserted between data at predetermined intervals to configure erasure position information of said first piece of data.

35. (Currently Amended) An error correction apparatus as defined in Claim 34, wherein said judgment means judges that said first piece of data and said second piece of data do ~~does~~ not exist between the same pieces of sub data groups with said second data when said first piece of data is ~~the next data to~~ directly subsequent to a piece of sub data ~~region~~ or a piece of sync data region of the in a data recording order.

36. (Currently Amended) An error correction apparatus as defined in Claim 35, wherein said error correction means performs error correction without using said erasure position information when ~~the number~~ an amount of said erasure position information configured ~~in by~~ said configuration means is higher than ~~the number~~ an amount of parity data.

37. (Currently Amended) An error correction method as defined in Claim 18, wherein ~~the method uses sync data which~~ is inserted between data at predetermined intervals to configure the erasure position information of said first piece of data.

38. (Currently Amended) An error correction method as defined in Claim 23, wherein ~~the method uses~~ sync data ~~which~~ is inserted between data at predetermined intervals to configure the erasure position information of said first piece of data.

39. (Currently Amended) An error correction apparatus as defined in Claim 28, wherein ~~the apparatus uses~~ sync data ~~which~~ is inserted between data at predetermined intervals to configure erasure position information of said first piece of data.

40. (Currently Amended) An error correction apparatus as defined in Claim 33, wherein ~~the apparatus uses~~ sync data ~~which~~ is inserted between data at predetermined intervals to configure erasure position information of said first piece of data.